CFS-KW200S

SERVICE MANUAL

E Model

Model Name Using Similar Mechanism		New
Tape Transport Mechanism Type	DECK A	MF-KW200S
	DECK B	MF-KW200S

SPECIFICATIONS

Frequency range	FM: Saudi Arabia 87.6 – 107 MHz Other countries 87.6 – 108 MHz SW1: 2.3 – 7 MHz SW2: 7 – 22 MHz MW: 530 – 1605 kHz
Recording system	4-track 2-channel stereo
Frequency response	80 – 8000 Hz
Antennas	FM/SW: Telescopic MW: Built-in ferrite bar
Speakers	Two way Approx. 16.5 cm dia. woofer x 2 Approx. 3.5 cm dia. tweeter x 2
Maximum power output	20 W (10 W + 10 W)
Input	MIX MIC jack (monaural phone jack) (2) Sensitivity 4.4 mV, for low impedance microphone
Output	Headphones jack (stereo phone jack) (1) for 8–300-ohm impedance headphones Speaker terminals for 6 ohm impedance speaker
Power requirements	110 – 120V/220 – 240V AC adjustable, 50/60 Hz 12V DC, eight R20 (size D) batteries

Battery life

Battery	FM recording
Sony SUM-1 (NS)	Approx. 8 hours
Sony AM1 (N) alkaline	Approx. 17 hours

Power consumption	30 W in AC operation
Dimensions	Approx. 758 x 275 x 201 mm (w/h/d) incl. speakers, projecting parts and controls, not incl. handle
Weight	Approx. 8.2 kg incl. batteries and speakers
Accessories supplied	AC power cord (1) Microphone (1)

Design and specifications subject to change without notice.

Optional accessories

Sony "MDR" headphones series
Sony "DYNAMIC MICROPHONE" series
Sony cassette eraser BE-A200

RADIO CASSETTE-CORDER

SONY®

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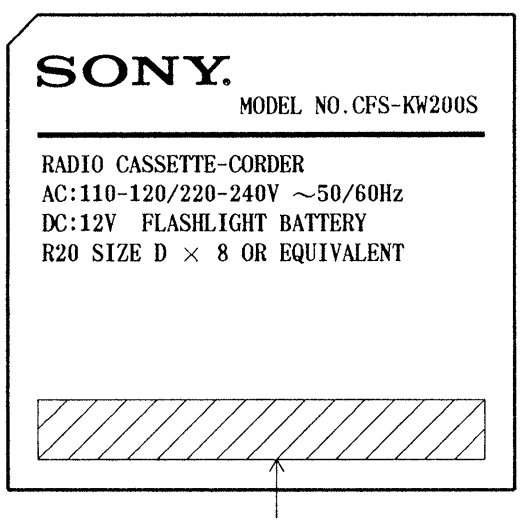
—MODEL IDENTIFICATION—

(Specification label)



Saudi Arabia model:MADE IN KOREA
UNDER LICENSE FROM
SONY CORP.TOKYO JAPAN

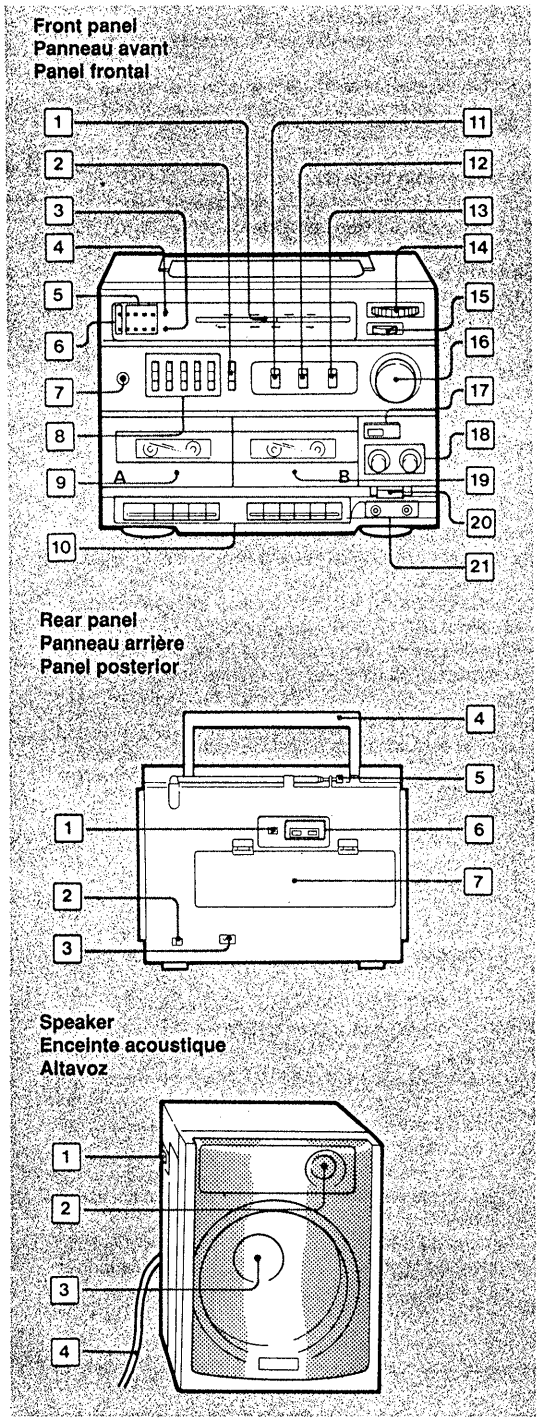
E model:SONY CORP.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
GENERAL

This section is extracted from instruction manual.



Front Panel

1 Dial scale and pointer
2 BALANCE control
3 TUNING indicator
4 FM STEREO indicator
5 LEVEL meters
6 OPR/BATT (operation/battery) indicators
7 HEADPHONES jack (stereo phone jack)
8 5 BAND GRAPHIC EQUALIZER controls
9 Cassette holder A
10 Tape operating buttons
- ● REC (record) button: Deck B only
- ► PLAY (playback) button
- ◄◄ REW (rewind) button
- ►► FF (fast-forward) button
- ■⏏ STOP/EJECT button
- ❚❚ PAUSE button

11 FUNCTION selector
RADIO
DUBBING HIGH (high speed)
NORMAL (normal speed)
TAPE/RADIO OFF
12 KARAOKE MODE switch
13 BAND SELECT switch
FM/SW1/SW2/MW
14 TUNING knob
15 FINE TUNING knob
16 VOLUME control
17 REC MUTE switch
18 MIC FADER controls
19 Cassette holder B
20 ECHO control
21 MIX MIC (mixing microphone) jacks (monaural phone jack)

Rear Panel

1 ISS (interference supress switch)/FM MODE switch
2 VOLTAGE SELECTOR
3 AC IN (AC input) socket
4 Handle
5 Telescopic antenna
6 Speaker terminals
7 Battery compartment

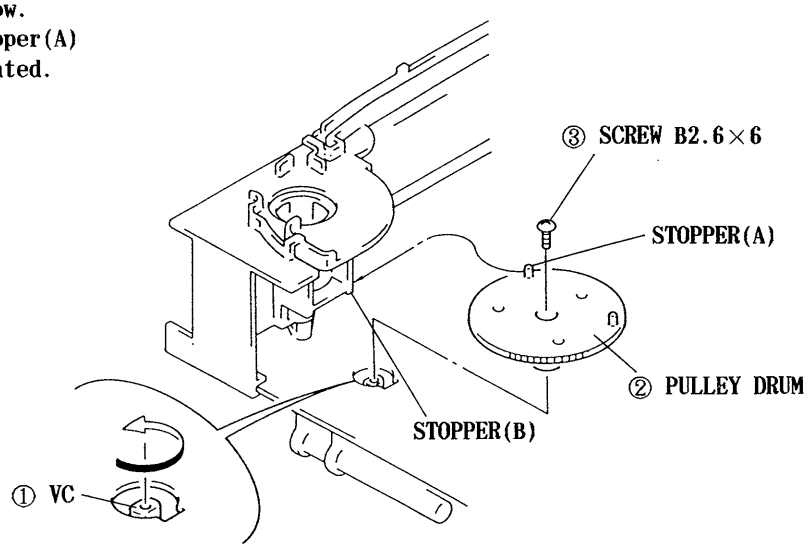
Speaker

1 Lock tab
2 Tweeter
3 Woofer
4 Speaker cord

SECTION 2
DISASSEMBLY

DIAL POINTER INSTALLATION

1. Turn VC fully in the direction of arrow.
2. Install PULLEY DRUM to VC so that stopper(A) and stopper (B) is touched as illustrated.



1. Turn wheel drum fully in the direction of arrow.
2. Install the pointer.
3. Touch the pointer to portion C as shown in figure 1.
4. Insert the KNOB TUNING.

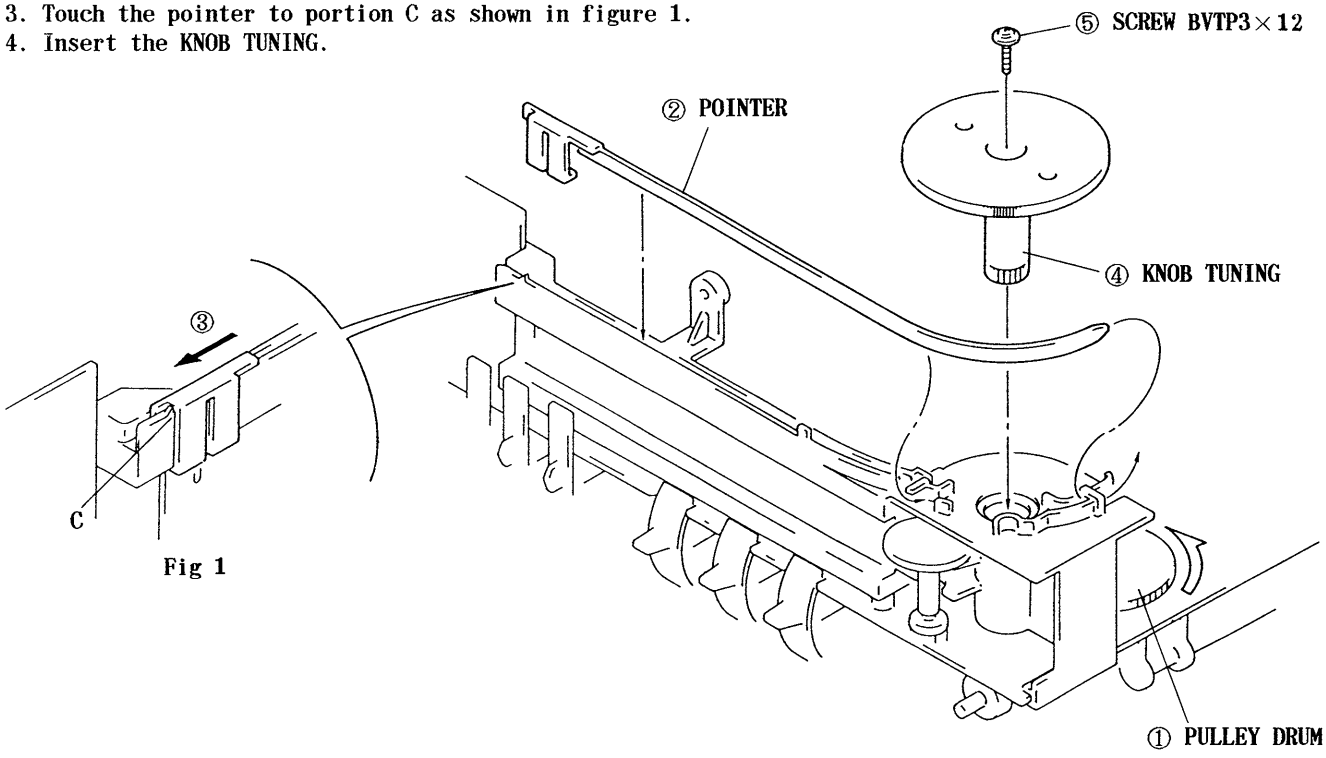


Fig 1

SECTION 3
ADJUSTMENTS

● Refer to page 8 for Adjustment Location.

3-1. MECHANICAL ADJUSTMENTS PRECAUTION

1. Clean the following parts with a denaturedalcohol-moistened swab:
   record/playback head, playback head, erase head, capstan, pinch rollers, rubber belts, idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

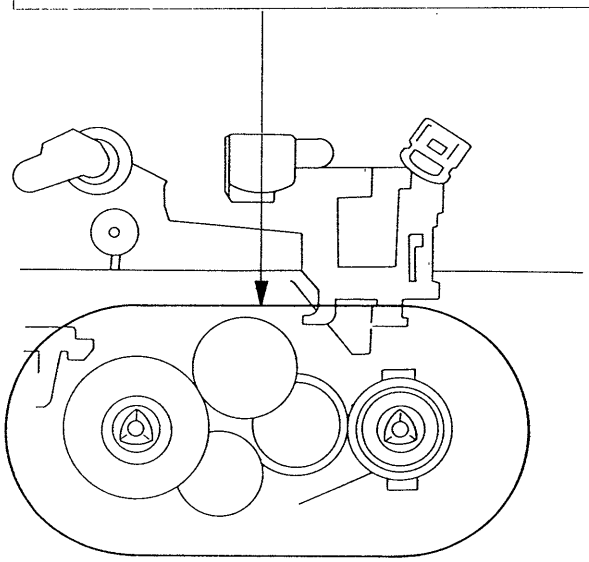
Torque Measurement

Torque Measurement

Torque	Torque Meter	Meter Reading
Play back	CQ-102C	30 - 70 g • cm (0.41 - 0.97 oz • inch)
Rewind Fast Forward	CQ-201B	DECK A:more than 80 g • cm (more than 1.11 oz • inch) DECK A:more than 55 g • cm (more than 0.76 oz • inch)
Back Tension	CQ-102C	1.5 - 5.5 g • cm (0.03 - 0.07 oz • inch)

Tape Tension Measurement

Torque Meter	Meter Reading
CQ-403A	more than 100g (3.25 oz)



3-2. ELECTRICAL ADJUSTMENTS

0dB=0.775V (AF)
0dB=0.1μV (RF)

CASSETTE DECK SECTION

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.
  TAPE SELECT switch: NORMAL

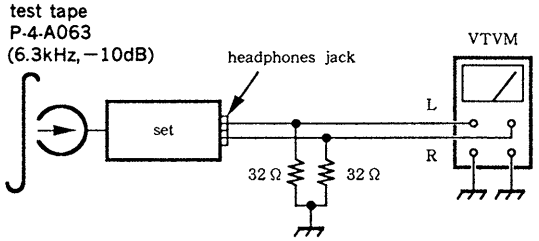
Type	Signal	Used for
P-4-A063	6.3kHz, −10dB	Azimuth Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record/Playback Head Azimuth Adjustment

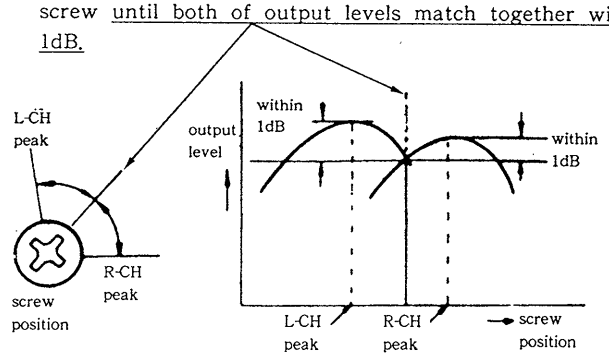
Note: Perform this adjustments for both decks.

Procedure:

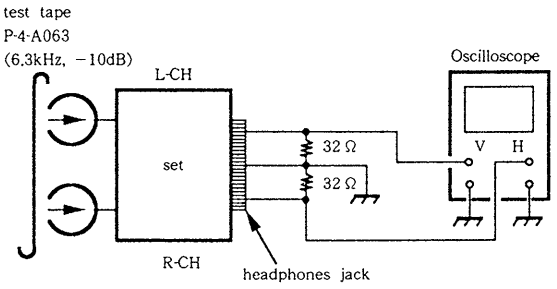
1. Mode: FWD playback

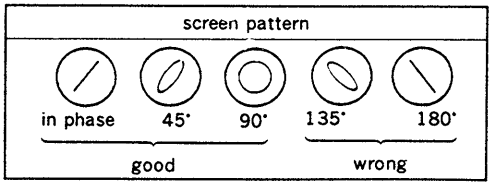


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



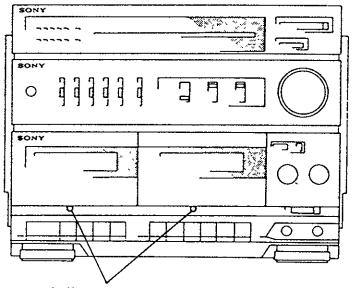
Phase Check
Mode : playback

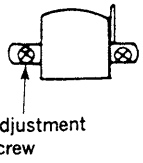




3. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location :

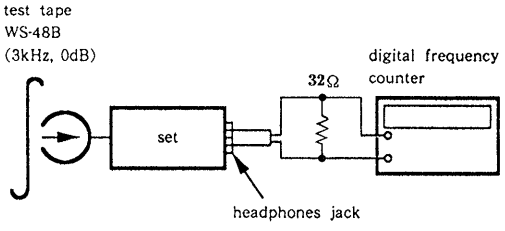




Tape Speed Adjustment

Procedure:

Mode:playback



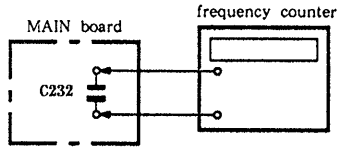
1. Playback WS-48B(Tape center portion) in FWD mode.
2. Adjust with SVR801 so that at this time the frequency counter reads 3000±90Hz.
   Frequency differnce between the begining and the end of the tape should be within 1.0%.

AUDIO SECTION

Record Bias OSC Frequency Adjustment

DECK B

Procedure:



1. The set should be under no signal conditions recording mode.
2. Connect the frequency counter to C232 on the MAIN board.
3. Adjust with L201 so that the record bias OSC frequency is 50kHz.

ECHO Noise Adjustment

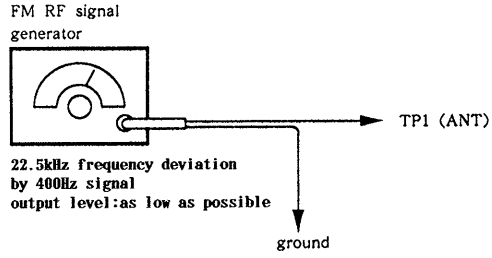
Procedure:

1. Adjust with SVR340 so that the noise is minimum.

RADIO SECTION

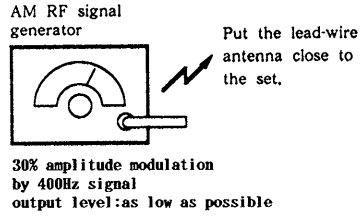
• FM Section

Setting :
FUNCTION switch : RADIO
Band switch : FM



• AM Section

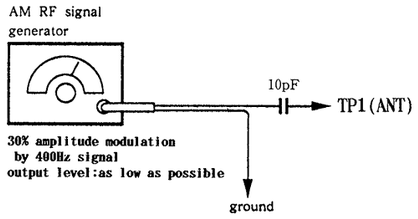
Setting :
FUNCTION switch : RADIO
Band Switch : MW

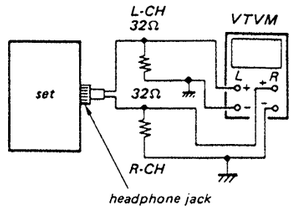


· SW1/SW2 Section

Setting:

FUNCTION switch : RADIO
BAND switch : SW1/SW2





- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

FM SECTION

( ):Saudi Arabia model

FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L2	CT2
86.5MHz(87.4MHz)	109.5MHz(107.8MHz)

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L1	CT1
86.5MHz(87.4MHz)	109.5MHz(107.8MHz)

FM IF ALIGNMENT	
Adjust for a maximum reading on VTVM.	
T1	T3

AM SECTION

AM IF ALIGNMENT
Adjust for a maximum reading on VTVM.
T2
455kHz

MW SECTION

MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T103	CT6
520kHz	1,680kHz

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L103	CT5
620kHz	1,400kHz

SW1 SECTION

SW1 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T101	CT4
2.1MHz	7.3MHz

SW1 TRACKING ADJUSTMENT
Adjust for a maximum reading on VTVM.
L101
2.5MHz

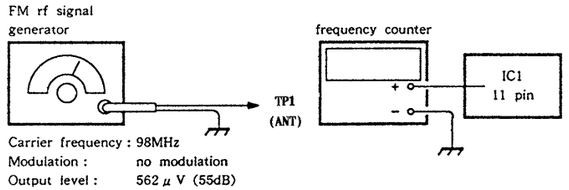
SW2 SECTION

SW2 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T102	CT3
6.8MHz	22.5MHz

SW2 TRACKING ADJUSTMENT
Adjust for a maximum reading on VTVM.
L102
8MHz

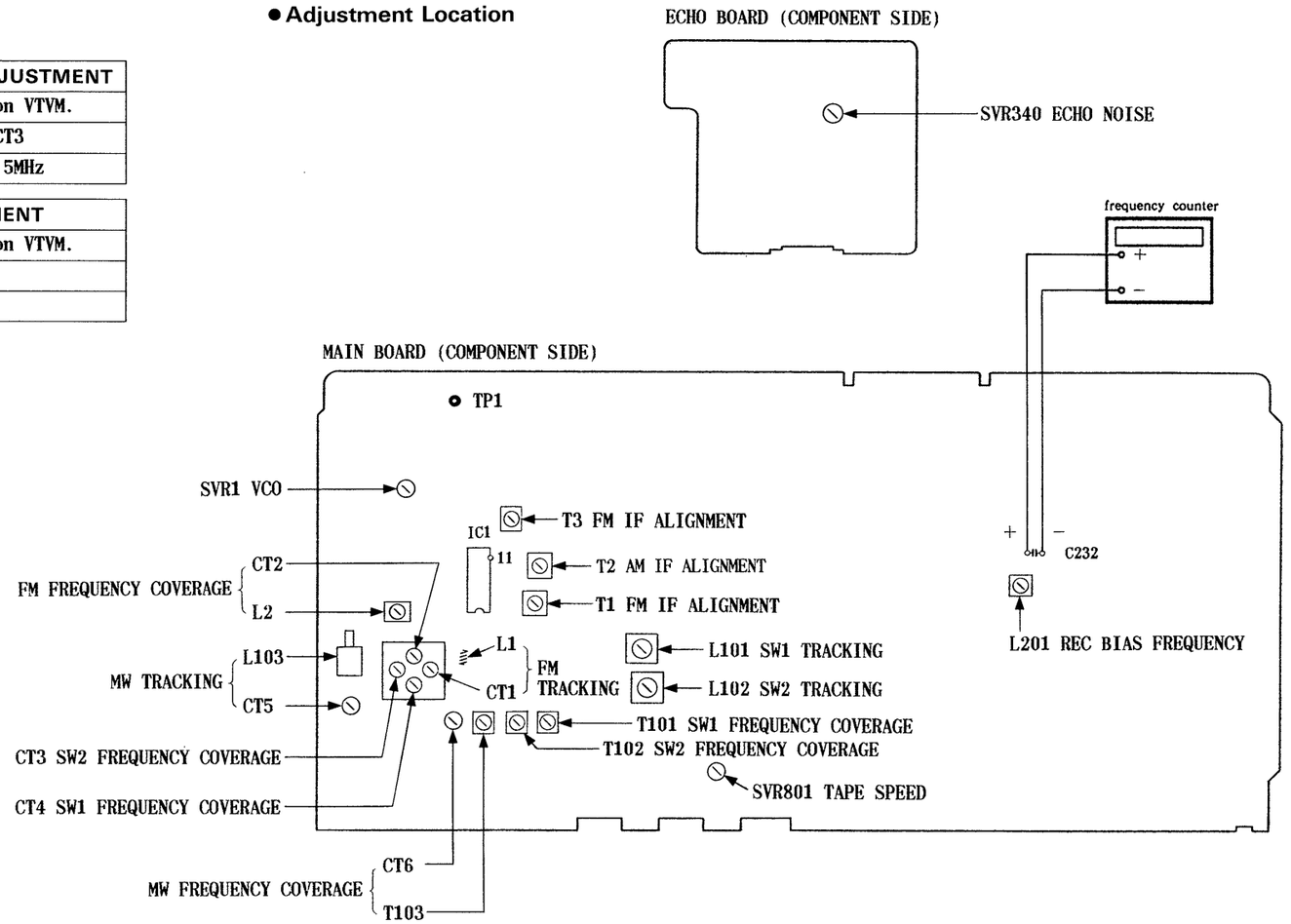
VCO Adjustment

Procedure:



1. Connect frequency counter to IC1 ⑪ pin.
2. Tune the set to 98MHz.
3. FM MODE switch (S301) should be set STEREO positions.
4. Adjust SVR1 for 76kHz±0.2kHz reading on the frequency counter.

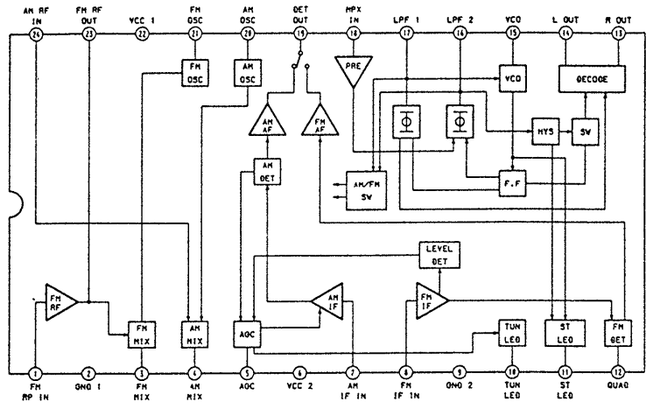
● Adjustment Location



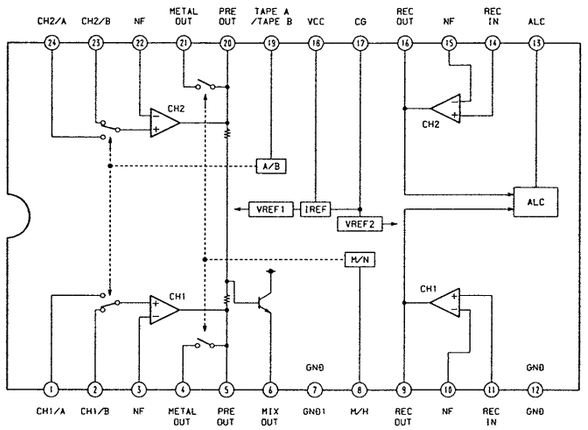
SECTION 4
DIAGRAMS

IC BLOCK DIAGRAMS

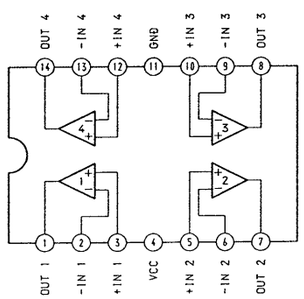
IC1
TA8167N



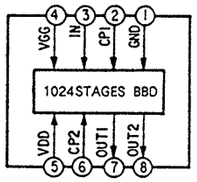
IC201
TA8189N



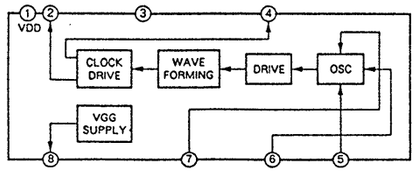
IC301
KA324



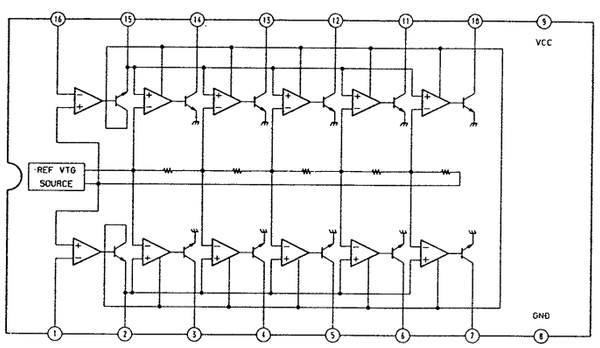
IC302
MN3207



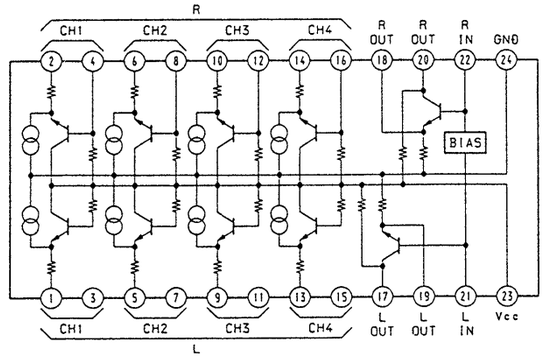
IC303
MN3102



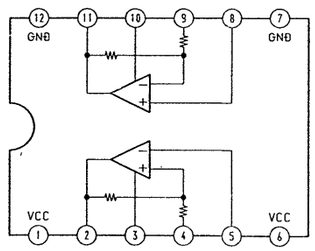
IC401
KA2281



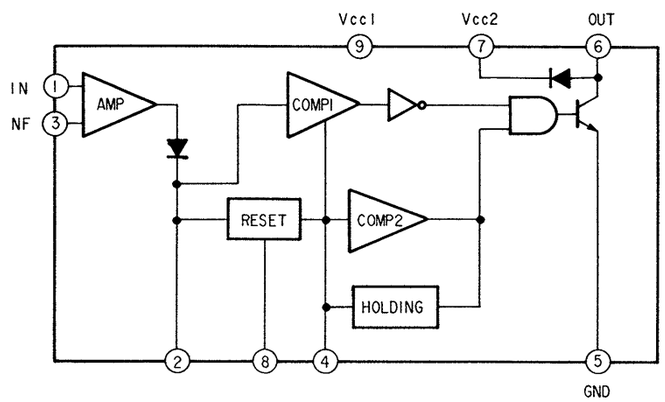
IC501
BA3822LS



IC602,652
BA5412



IC1001
KA2231



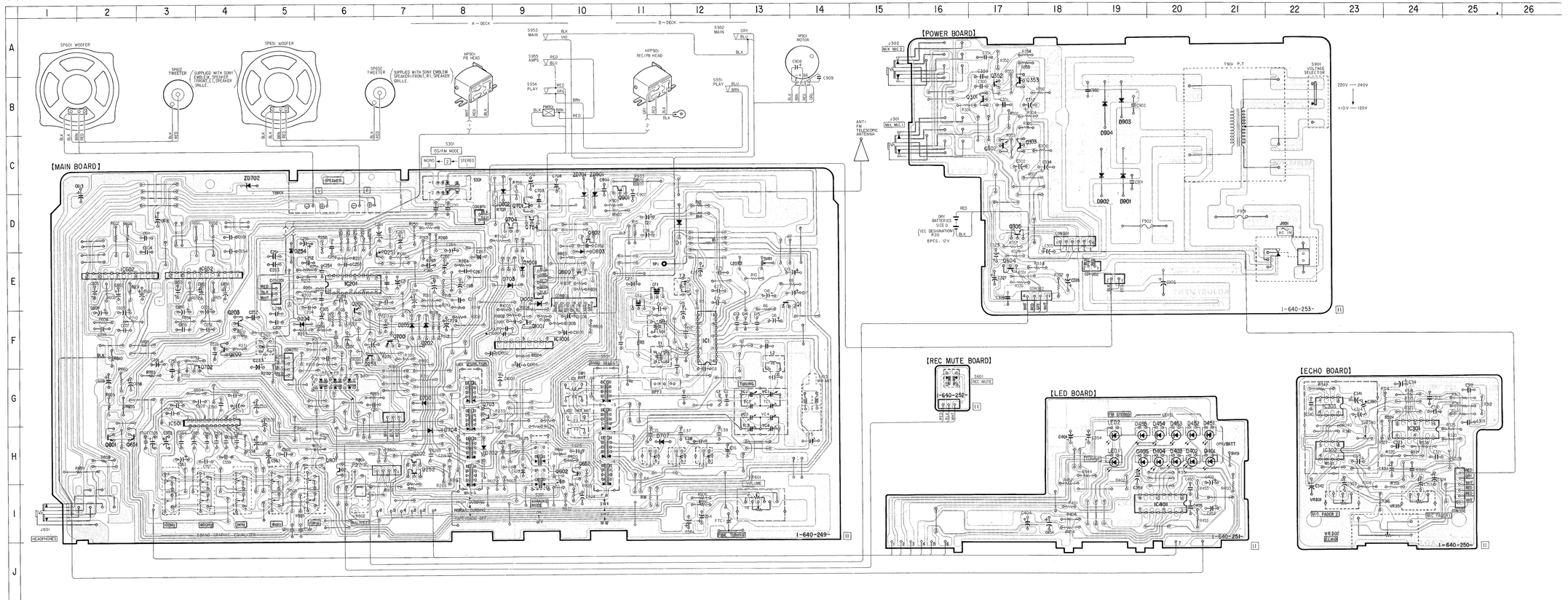
4-1. PRINTED WIRING BOARDS

●SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D1	D-12	Q1	E-13
D202	F-7	Q200	F-4
D204	F-4	Q201	F-6
D205	F-7	Q202	H-7
D254	E-5	Q203	F-4
D401	H-21	Q251	E-7
D402	H-20	Q252	H-7
D403	H-20	Q253	F-6
D404	H-20	Q301	B-17
D405	H-19	Q302	C-17
D451	H-20	Q303	C-17
D452	H-21	Q304	E-17
D453	H-20	Q305	D-17
D454	H-20	Q352	B-17
D455	H-19	Q353	B-17
D700	G-7	Q601	H-2
D702	H-8	Q602	H-10
D703	E-9	Q651	H-2
D704	H-7	Q652	H-10
D707	H-11	Q700	F-7
D802	C-9	Q701	D-9
D803	E-10	Q702	G-4
D901	C-19	Q703	G-8
D902	C-19	Q704	D-9
D903	B-19	Q754	D-9
D904	B-19	Q800	E-10
D1001	E-9	Q801	H-6
D1002	E-9	Q802	D-10
LED1	H-19	Q901	C-11
LED2	H-19	Q1001	F-9
		ZD701	C-10
IC1	F-12	ZD702	C-4
IC201	F-6	ZD901	C-10
IC301	H-24		
IC302	H-23		
IC303	G-23		
IC401	I-20		
IC501	G-4		
IC602	E-2		
IC652	E-4		
IC1001	F-9		

Note:

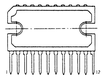
- ○——: parts extracted from the component side.
- ■ : parts mounted on the conductor side.



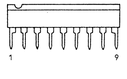
SEMICONDUCTOR LEAD LAYOUTS

BA3822LS

BA5412



KA2231



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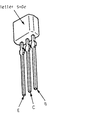


DTA124ES
DTC124XS
RN1210

KSA708
KSC1008
KSC900-L
KSC945L
KSD227-Y
KSD882-O

10E2
1N5173
1SS120
RD12F-B
RD22F-B1
RD8.2ES-B2
RD9.1F-B2

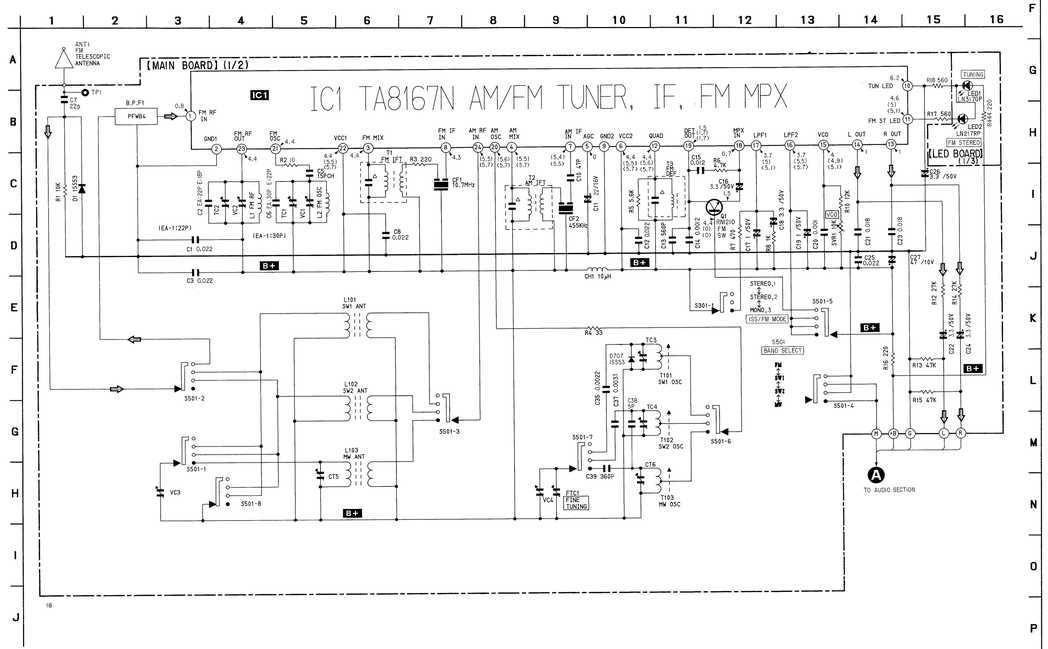
SLP162B

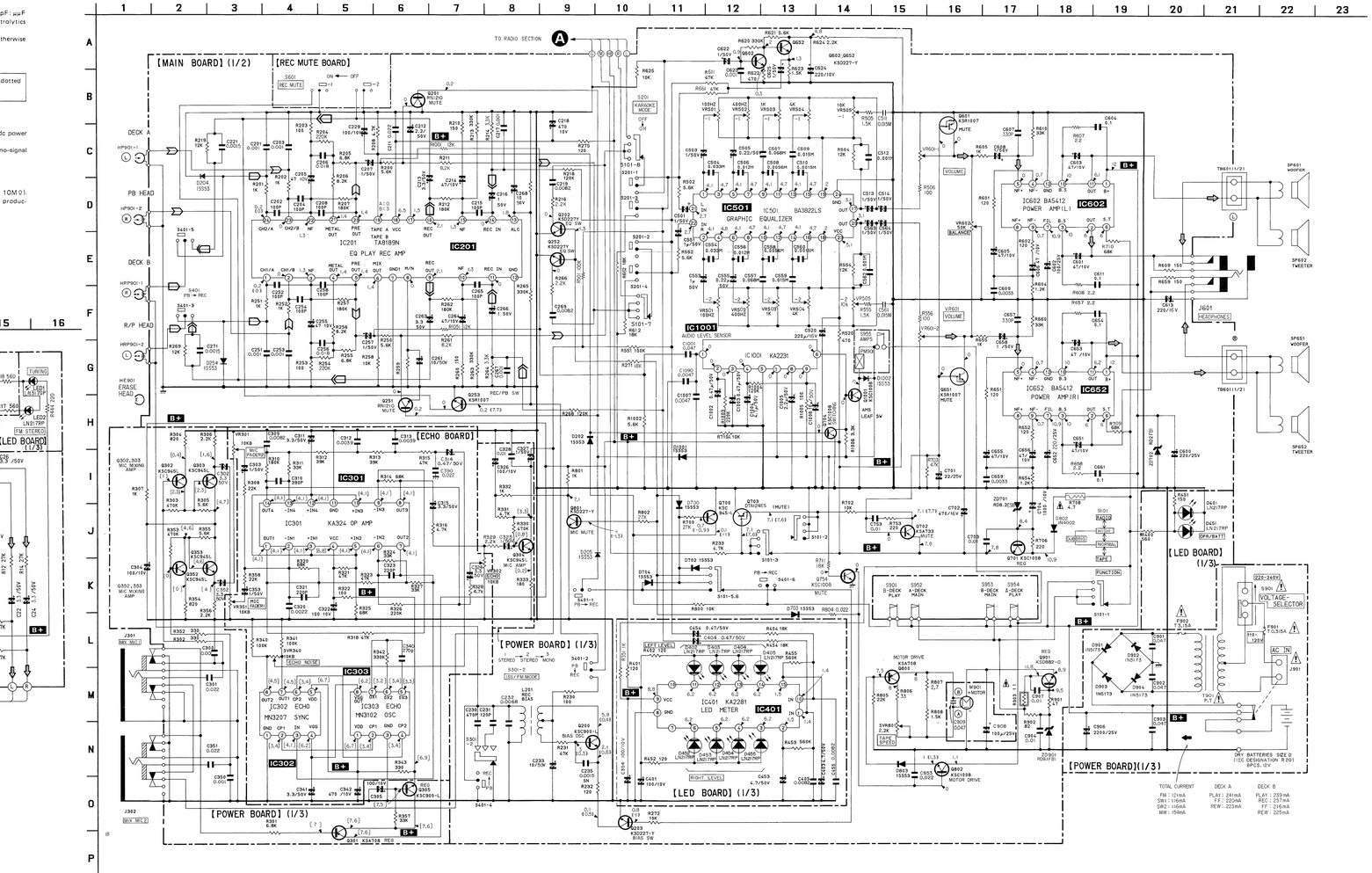
Note:

- All capacitors are in μF unless otherwise noted. pF : μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- : fusible resistor.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- **B+** : B+ Line
- : adjustment for repair.
- Power voltage is dc 12V and fed with regulated dc power supply from the battery terminal.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM or REC (( )) : PLAY
  ( ) : SW1, SW2 [ ] : MIC IN
  < > : MW
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM ⇨ : PB (DECK A)
  ⇨ : PB (DECK B)
  ⇨ : REC (DECK B)





TOTAL CURRENT
FM : 121mA
SW1 : 116mA
SW2 : 116mA
MW : 154mA

DECK A
PLAY : 241mA
FF : 222mA
REW : 225mA

DECK B
PLAY : 259mA
REC : 257mA
FF : 216mA
REW : 225mA

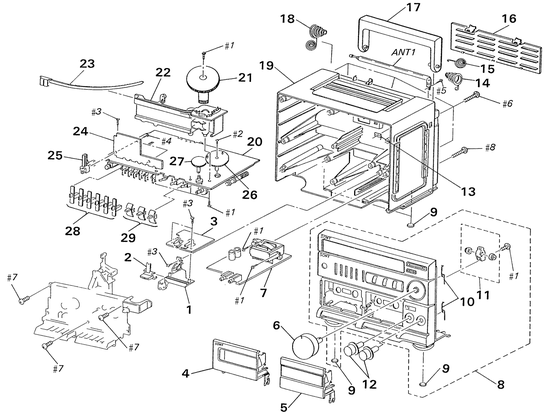
SECTION 5
EXPLODED VIEWS

NOTE:
- −XX, −X mean standardized parts, so they may have some differences from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE(WHITE)... (RED)
  ↑ ↑
  Part's Color Cabinet's Color
- Hardware (#mark) list is given in the last of this parts lists.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

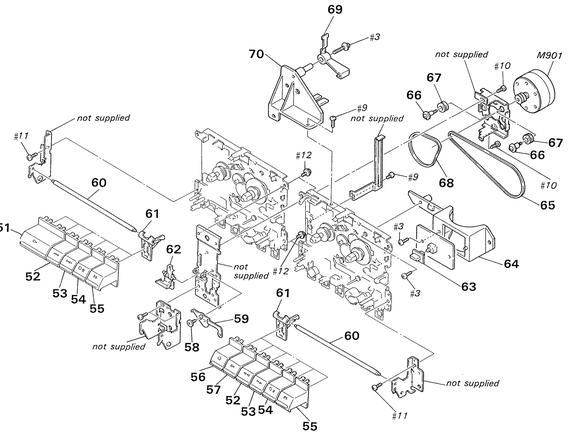
- EA : Saudi Arabia

(1) CABINET SECTION



Ref.No.	Part No.	Description	Remark
1	* 3-370-930-01	CHASSIS, MICROPHONE	
2	3-362-755-01	KNOB, SLIDE	
3	* A-3275-173-A	ECHO BOARD, COMPLETE	
4	X-3363-372-1	HOLDER (A) ASSY, CASSETTE	
5	X-3363-373-1	HOLDER (B) ASSY, CASSETTE	
6	3-371-196-01	KNOB, VOLUME	
7	* 1-640-253-11	POWER BOARD	
8	X-3363-371-1	CABINET ASSY (E)	
8	X-3363-394-1	CABINET ASSY (EA)	
9	3-395-240-01	FOOT RUBBER	
10	3-362-735-01	SPRING (DOOR)	
11	X-3362-240-1	GEAR ASSY, DAMPER	
12	3-362-758-01	KNOB, MIX MIC	
13	3-356-251-01	ANTENNA, BRACKET	
14	3-356-253-01	SPRING (A), BATT	
15	3-362-746-01	SPRING (D), BATTERY	
16	3-362-739-01	LID, BATTERY CASE	
17	X-3362-244-1	HANDLE	
18	3-356-254-01	SPRING (C), BATT	
19	3-370-299-01	CABINET (REAR)	
20	* A-3275-171-A	MAIN BOARD, COMPLETE (E)	
20	* A-3275-183-A	MAIN BOARD, COMPLETE (EA)	
21	3-362-751-01	KNOB, TUNING	
22	3-362-747-01	CHASSIS, MAIN	
23	3-362-749-02	POINTER	
24	* 1-640-251-11	LED BOARD	
25	3-362-748-01	CHASSIS, LED	
26	3-362-754-01	PULLEY, DRUM	
27	3-362-750-01	KNOB, FINE TUNING	
28	3-362-753-01	KNOB, EQ	
29	3-362-752-01	KNOB, LEVER	
ANT1	1-501-345-11	ANTENNA, TELESCOPIC	

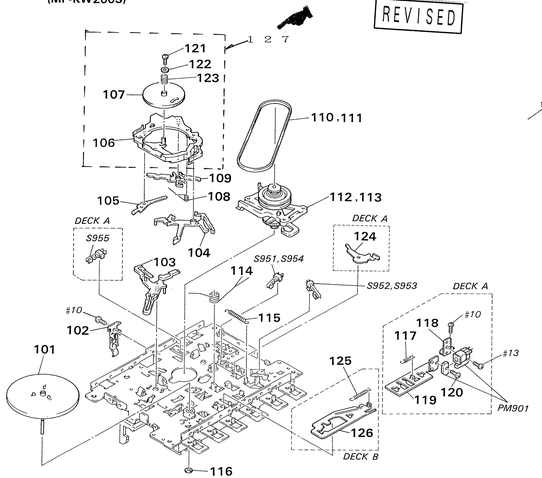
(2) MECHANISM DECK SECTION 1



Ref.No.	Part No.	Description	Remark
51	3-370-305-01	BUTTON, PLAY (A)	
52	3-370-309-01	BUTTON, REW	
53	3-370-308-01	BUTTON, FF	
54	3-370-310-01	BUTTON, STOP/EJECT	
55	3-370-311-01	BUTTON, PAUSE	
56	3-370-307-01	BUTTON, REC	
57	3-370-306-01	BUTTON, PLAY (B)	
58	3-362-958-01	SCREW	
59	* 3-365-927-01	ARM, CONNECT	
60	* 4-894-970-01	BUTTON SHAFT	
61	3-370-301-01	LEVER, OPERATING	
62	3-365-928-01	ARM, RELEASE	
63	3-370-313-01	BUTTON, EDIT	
64	* 3-370-302-01	CHASSIS, EDIT	
65	3-369-931-01	BELT	
66	3-343-896-01	SCREW, MOTOR	
67	3-343-897-01	WASHER, RUBBER	
68	3-362-989-01	BELT	
69	3-370-304-01	LEVER, REC	
70	* 3-370-303-01	CHASSIS, REC	
M901	3-369-930-01	MOTOR ASSY	

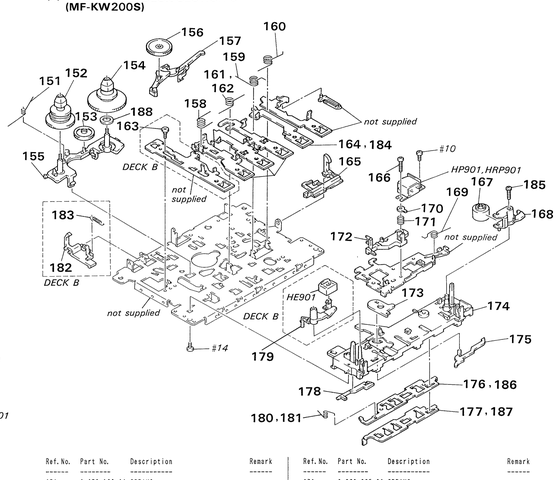
(3) MECHANISM DECK SECTION 2 (MF-KW200S)

REVISED



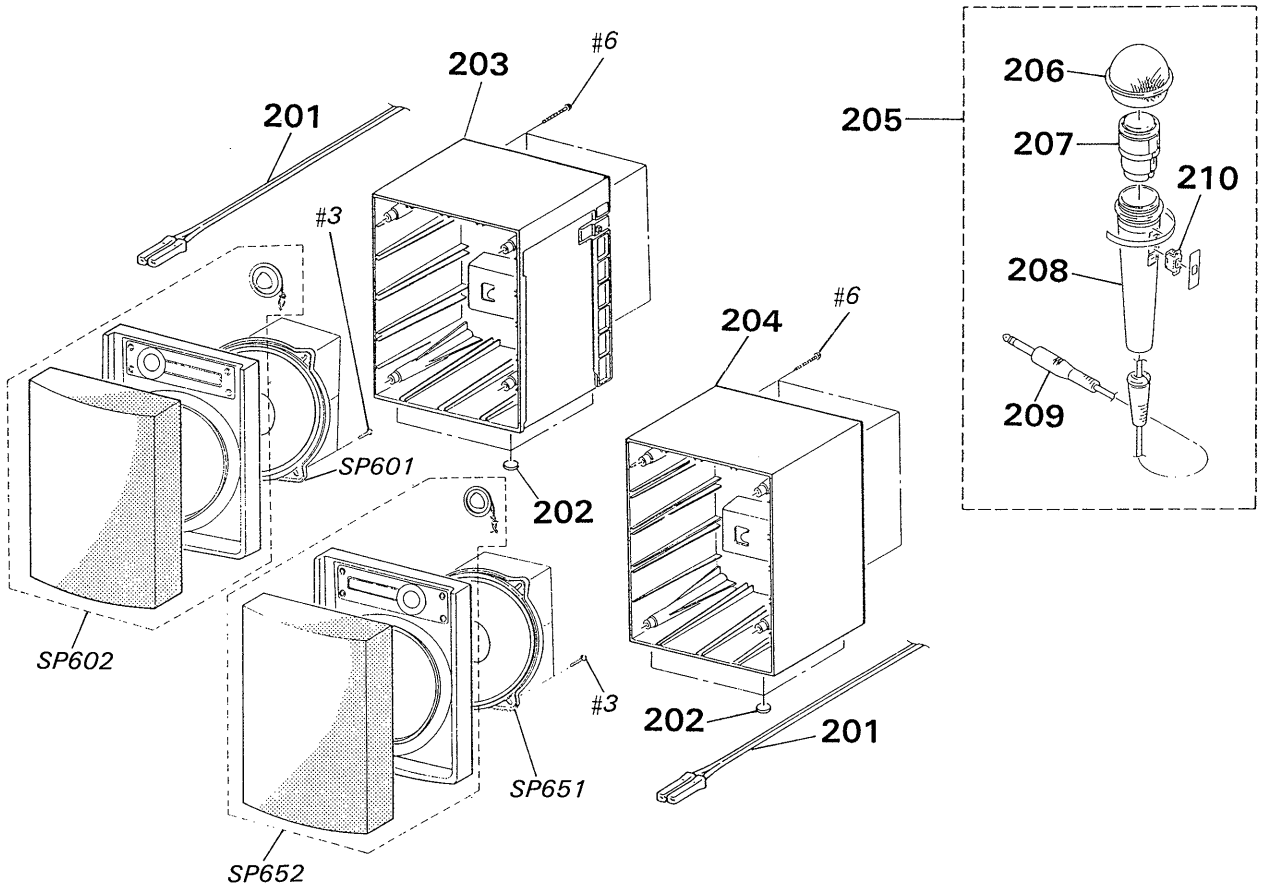
Ref.No.	Part No.	Description	Remark
101	3-369-921-01	FW ASSY	
102	3-362-967-01	SPRING, CASSETTE	
103	3-362-972-01	SENSOR	
104	3-362-975-01	LEVER, SENSOR	
105	3-362-978-01	SPRING, PLATE	
106	3-362-973-01	AS (BASE)	
107	3-362-974-01	GEAR, CAM	
108	3-362-977-01	SPRING	
109	3-362-976-01	LEVER, CONTROL	
110	3-362-989-01	BELT (DECK B)	
111	3-369-918-01	BELT (DECK A)	
112	3-362-969-01	IDLER ASSY, PF (DECK B)	
113	3-369-920-01	IDLER ASSY, PF (DECK A)	
114	3-362-970-01	SPRING	
115	3-362-971-01	SPRING	
116	3-362-980-01	WASHER	
117	3-363-228-01	SPRING (DECK A)	
118	* 3-369-922-01	HOLDER, SOLENOID (DECK A)	
119	* 3-369-923-01	LEVER, LOCK (DECK A)	
120	3-393-223-01	SCREW (DECK A)	
121	3-366-352-01	SCREW	
122	3-369-961-01	WASHER	
123	3-369-962-01	SPRING, COMPRESSION	
124	* 3-369-916-01	LEVER, SWITCH (DECK A)	
125	3-371-923-01	SPRING (DECK B)	
126	3-371-919-01	PLATE FR STOP (DECK B)	
PM901	1-454-466-11	SOLENOID (DECK A)	
S951	1-571-745-11	SWITCH, LEAF (B-PLAY)	
S952	1-572-538-11	SWITCH, LEAF (B-MAIN)	
S953	1-572-538-11	SWITCH, LEAF (A-MAIN)	
S954	1-571-745-11	SWITCH, LEAF (A-PLAY)	
S955	1-571-745-11	SWITCH, LEAF (AMPS)	
127	X-3363-315-1	GEAR ASSY, CAM (Including 106, 107, 121, 122, 123)	

(4) MECHANISM DECK SECTION 3 (MF-KW200S)



Ref.No.	Part No.	Description	Remark
151	3-372-120-01	SPRING	
152	3-362-963-02	REEL, S	
153	3-362-965-01	IDLER, FF	
154	3-362-962-01	REEL ASSY, T	
155	3-362-961-01	SPINDLE (BASE)	
156	3-362-960-01	PULLEY, IDLER	
157	3-362-959-01	ARM, IDLER	
158	3-362-954-01	SPRING	
159	3-362-956-01	SPRING	
160	3-370-698-01	SPRING	
161	3-362-955-01	SPRING (DECK B)	
162	3-369-917-01	SPRING (DECK A)	
163	3-362-958-01	SCREW	
164	* 3-362-951-01	LEVER, SE (DECK A)	
165	3-362-968-02	LEVER, EJECT	
166	3-363-229-01	SCREW	
167	3-362-982-01	PINCH ROLLER	
168	3-362-981-01	PINCH ARM	
169	3-362-983-01	SPRING	
170	3-395-817-01	LUG	
171	3-362-985-01	SPRING	
172	3-362-986-01	HOLDER, HEAD	
173	3-362-108-01	LINK, CR	
174	3-362-942-01	FRAME ASSY	
175	3-366-107-01	ARM, CR	
176	* 3-369-912-01	PLATE, FUNCTION (DECK A)	
177	* 3-369-914-01	LEVER, SW (DECK A)	
178	3-362-944-01	STOPPER, REC	
179	3-362-987-01	ARM, EH	
180	3-369-913-01	SPRING (DECK A)	
181	3-362-945-01	SPRING (DECK B)	
182	3-362-966-01	INTER LOCK	
183	3-362-958-01	SCREW	
184	* 3-362-951-01	LEVER, SE (DECK B)	
185	3-366-352-01	SCREW	
186	* 3-362-943-01	PLATE, FUNCTION (DECK B)	
187	* 3-362-946-01	LEVER, SW (DECK B)	
188	* 3-372-173-01	PLATE, SPRING BT	
HE901	1-543-558-11	HEAD, E	
HP901	1-543-727-11	HEAD (PLAYBACK) (DECK A)	
HRP901	1-543-727-11	HEAD (RECORD/PLAYBACK) (DECK B)	

(5) MICROPHON AND SPEAKERS SECTION



Ref. No.	Part No.	Description	Remark
201	1-559-620-11	CORD (WITH CONNECTOR)	
202	3-363-780-01	FOOT RUBBER	
203	3-362-771-01	SPEAKER (BACK) (L)	
204	3-362-870-01	SPEAKER (BACK) (R)	
205	1-542-153-11	MICROPHONE, DYNAMIC	
206	* 3-366-266-01	GRILLE ASSY	
207	* 3-366-267-01	UNIT ASSY	
208	* 3-366-268-01	BODY ASSY	
209	* 1-590-482-11	CORD ASSY	
210	* 1-572-657-11	SWITCH, SLIDE	
SP601	1-544-378-11	SPEAKER (16CM)	
SP602	X-3363-374-1	SP FRONT L	
SP651	1-544-378-11	SPEAKER (16CM)	
SP652	X-3363-375-1	SP FRONT R	

SECTION 6
ELECTRICAL PARTS LIST

ECHO

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- −XX, −X mean standardized parts, so they may have some differences from the original one.

- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE : Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA··· : μA···, uPA··· : μPA···,
  uPB··· : μPB···, uPC··· : μPC···,
  uPD··· : μPD···
- CAPACITORS
  uF : μF
- COILS
  uH : μH

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- EA : Saudi Arabia

Ref. No.	Part No.	Description			Remark
*	A-3275-173-A	ECHO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C303	1-124-903-11	ELECT	1uF	20%	50V
C309	1-161-050-00	CERAMIC	0.0082uF	10%	25V
C310	1-162-289-31	CERAMIC	390PF	10%	50V
C311	1-123-382-00	ELECT	3.3uF	20%	100V
C312	1-130-478-00	MYLAR	0.0039uF	5%	50V
C313	1-130-478-00	MYLAR	0.0039uF	5%	50V
C314	1-124-902-00	ELECT	0.47uF	20%	50V
C315	1-123-382-00	ELECT	3.3uF	20%	100V
C320	1-130-475-00	MYLAR	0.0022uF	5%	50V
C321	1-162-286-31	CERAMIC	220PF	10%	50V
C322	1-124-443-00	ELECT	100uF	20%	10V
C323	1-162-286-31	CERAMIC	220PF	10%	50V
C324	1-123-382-00	ELECT	3.3uF	20%	100V
C340	1-162-287-31	CERAMIC	270PF	10%	50V
C341	1-123-382-00	ELECT	3.3uF	20%	100V
C342	1-124-472-11	ELECT	470uF	20%	10V
C353	1-124-903-11	ELECT	1uF	20%	50V
C390	1-161-494-00	CERAMIC	0.022uF		25V
		< CONNECTOR >			
CON304	* 1-580-295-11	WAFER, CONNECTOR 6P			
		< IC >			
IC301	8-759-506-33	IC KA324			
IC302	8-759-400-14	IC MN3207			
IC303	8-759-420-66	IC MN3102			

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R308	1-249-433-11	CARBON	22K	5%	1/4W
R310	1-247-885-00	CARBON	180K	5%	1/4W
R311	1-249-435-11	CARBON	33K	5%	1/4W
R312	1-249-436-11	CARBON	39K	5%	1/4W
R313	1-249-436-11	CARBON	39K	5%	1/4W
R314	1-249-439-11	CARBON	68K	5%	1/4W
R315	1-249-437-11	CARBON	47K	5%	1/4W
R316	1-249-425-11	CARBON	4.7K	5%	1/4W
R318	1-249-437-11	CARBON	47K	5%	1/4W
R320	1-249-439-11	CARBON	68K	5%	1/4W
R321	1-249-437-11	CARBON	47K	5%	1/4W
R322	1-249-405-11	CARBON	100	5%	1/4W
R323	1-249-437-11	CARBON	47K	5%	1/4W
R324	1-249-435-11	CARBON	33K	5%	1/4W
R325	1-249-439-11	CARBON	68K	5%	1/4W
R326	1-247-887-00	CARBON	220K	5%	1/4W
R327	1-249-435-11	CARBON	33K	5%	1/4W
R328	1-249-425-11	CARBON	4.7K	5%	1/4W
R340	1-249-441-11	CARBON	100K	5%	1/4W
R341	1-249-441-11	CARBON	100K	5%	1/4W
R342	1-247-891-00	CARBON	330K	5%	1/4W
R343	1-249-411-11	CARBON	330	5%	1/4W
R358	1-249-433-11	CARBON	22K	5%	1/4W
		< VARIABLE RESISTOR >			
SVR340	1-228-994-00	RES, ADJ, METAL 10K			
		< VARIABLE RESISTOR >			
VR301	1-241-246-11	RES, VAR, CARBON 10K (MIC FADER 2)			
VR302	1-241-247-11	RES, VAR, SLIDE 10K (ECHO)			
VR351	1-241-246-11	RES, VAR, CARBON 10K (MIC FADER 1)			

Ref. No.	Part No.	Description			Remark
*	1-640-251-11	LED BOARD			
		*********			
	3-362-776-01	GUIDE, LED			
		< CAPACITOR >			
C354	1-124-443-00	ELECT	100uF	20%	10V
C401	1-124-443-00	ELECT	100uF	20%	10V
C403	1-126-163-11	ELECT	4.7uF	20%	50V
C404	1-124-465-00	ELECT	0.47uF	20%	50V
C405	1-130-482-00	MYLAR	0.0082uF	5%	50V
C453	1-126-163-11	ELECT	4.7uF	20%	50V
C454	1-124-465-00	ELECT	0.47uF	20%	50V
C455	1-130-482-00	MYLAR	0.0082uF	5%	50V
		< DIODE >			
D401	8-719-915-45	LED SLP162B			
D402	8-719-915-45	LED SLP162B			
D403	8-719-915-45	LED SLP162B			
D404	8-719-915-45	LED SLP162B			
D405	8-719-915-45	LED SLP162B			
D451	8-719-915-45	LED SLP162B			
D452	8-719-915-45	LED SLP162B			
D453	8-719-915-45	LED SLP162B			
D454	8-719-915-45	LED SLP162B			
D455	8-719-915-45	LED SLP162B			
		< IC >			
IC401	8-759-506-34	IC KA2281			
		< LED >			
LED1	8-719-421-54	LED LN317GP			
LED2	8-719-915-45	LED SLP162B			
		< RESISTOR >			
R351	1-249-417-11	CARBON	1K	5%	1/4W
R400	1-249-414-11	CARBON	560	5%	1/4W
R401	1-249-406-11	CARBON	120	5%	1/4W
R402	1-249-406-11	CARBON	120	5%	1/4W
R404	1-249-432-11	CARBON	18K	5%	1/4W
R444	1-249-409-11	CARBON	220	5%	1/4W
R451	1-249-407-11	CARBON	150	5%	1/4W
R452	1-249-406-11	CARBON	120	5%	1/4W
R453	1-247-897-11	CARBON	560K	5%	1/4W
R454	1-249-432-11	CARBON	18K	5%	1/4W
R455	1-247-897-11	CARBON	560K	5%	1/4W

Ref. No.	Part No.	Description			Remark
*	A-3275-171-A	MAIN BOARD, COMPLETE (E)			
*	A-3275-183-A	MAIN BOARD, COMPLETE (EA)			
		************************			
*	3-362-775-01	CHASSIS, EQ			
	7-685-647-79	SCREW +BVTP 3X10 TYPE2			
	7-682-549-04	SCREW +PTT 3X10 (S)			
		< FILTER >			
BPF1	1-235-536-11	FILTER, BAND PASS			
		< CAPACITOR >			
C1	1-161-494-00	CERAMIC	0.022uF		25V
C2	1-102-953-00	CERAMIC	18PF	5%	50V (E)
C2	1-102-959-00	CERAMIC	22PF	5%	50V (EA)
C3	1-161-494-00	CERAMIC	0.022uF		25V
C5	1-102-951-00	CERAMIC	15PF	5%	50V
C6	1-102-959-00	CERAMIC	22PF	5%	50V (E)
C6	1-102-962-00	CERAMIC	30PF	5%	50V (EA)
C7	1-162-207-31	CERAMIC	22PF	5%	50V
C8	1-161-494-00	CERAMIC	0.022uF		25V
C10	1-162-215-31	CERAMIC	47PF	5%	50V
C11	1-126-233-11	ELECT	22uF	20%	50V
C12	1-161-494-00	CERAMIC	0.022uF		25V
C13	1-162-291-31	CERAMIC	560PF	10%	50V
C14	1-130-472-00	MYLAR	0.0012uF	5%	50V
C15	1-130-484-00	MYLAR	0.012uF	5%	50V
C16	1-123-382-00	ELECT	3.3uF	20%	100V
C17	1-124-903-11	ELECT	1uF	20%	50V
C18	1-123-382-00	ELECT	3.3uF	20%	100V
C19	1-124-903-11	ELECT	1uF	20%	50V
C20	1-130-471-00	MYLAR	0.001uF	5%	50V
C21	1-130-486-00	MYLAR	0.018uF	10%	50V
C22	1-123-382-00	ELECT	3.3uF	20%	100V
C23	1-130-486-00	MYLAR	0.018uF	10%	50V
C24	1-123-382-00	ELECT	3.3uF	20%	100V
C25	1-161-494-00	CERAMIC	0.022uF		25V
C26	1-123-382-00	ELECT	3.3uF	20%	100V
C27	1-124-126-00	ELECT	47uF	20%	10V
C35	1-103-733-00	POLYSTYRENE	0.0022uF	5%	50V
C37	1-103-737-00	POLYSTYRENE	0.0033uF	5%	50V
C38	1-102-942-00	CERAMIC	5.0PF	+-0.5PF	50V
C39	1-104-066-00	POLYSTYRENE	360PF	5%	50V
C201	1-162-294-31	CERAMIC	0.001uF	10%	50V
C202	1-162-282-31	CERAMIC	100PF	10%	50V
C203	1-162-294-31	CERAMIC	0.001uF	10%	50V
C204	1-162-282-31	CERAMIC	100PF	10%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C205	1-124-126-00	ELECT	47uF	20%	10V
C206	1-130-486-00	MYLAR	0.018uF	10%	50V
C207	1-124-903-11	ELECT	1uF	20%	50V
C208	1-162-282-31	CERAMIC	100PF	10%	50V
C211	1-161-494-00	CERAMIC	0.022uF		25V
C212	1-124-925-11	ELECT	2.2uF	20%	100V
C213	1-123-382-00	ELECT	3.3uF	20%	100V
C214	1-124-126-00	ELECT	47uF	20%	10V
C215	1-162-282-31	CERAMIC	100PF	10%	50V
C216	1-124-903-11	ELECT	1uF	20%	50V
C217	1-162-294-31	CERAMIC	0.001uF	10%	50V
C218	1-124-472-11	ELECT	470uF	20%	10V
C219	1-130-482-00	MYLAR	0.0082uF	5%	50V
C221	1-130-473-00	MYLAR	0.0015uF	5%	50V
C229	1-124-443-00	ELECT	100uF	20%	10V
C230	1-162-290-31	CERAMIC	470PF	10%	50V
C231	1-102-816-00	CERAMIC	120PF	5%	50V
C232	1-130-481-00	MYLAR	0.0068uF	5%	50V
C233	1-124-907-11	ELECT	10uF	20%	50V
C235	1-130-473-00	MYLAR	0.0015uF	5%	50V
C251	1-162-294-31	CERAMIC	0.001uF	10%	50V
C252	1-162-282-31	CERAMIC	100PF	10%	50V
C253	1-162-294-31	CERAMIC	0.001uF	10%	50V
C254	1-162-282-31	CERAMIC	100PF	10%	50V
C255	1-124-126-00	ELECT	47uF	20%	10V
C256	1-130-486-00	MYLAR	0.018uF	10%	50V
C257	1-124-903-11	ELECT	1uF	20%	50V
C258	1-162-282-31	CERAMIC	100PF	10%	50V
C261	1-124-907-11	ELECT	10uF	20%	50V
C263	1-123-382-00	ELECT	3.3uF	20%	100V
C264	1-124-126-00	ELECT	47uF	20%	10V
C265	1-162-282-31	CERAMIC	100PF	10%	50V
C266	1-124-903-11	ELECT	1uF	20%	50V
C267	1-162-294-31	CERAMIC	0.001uF	10%	50V
C268	1-124-907-11	ELECT	10uF	20%	50V
C269	1-130-482-00	MYLAR	0.0082uF	5%	50V
C271	1-130-473-00	MYLAR	0.0015uF	5%	50V
C501	1-124-903-11	ELECT	1uF	20%	50V
C503	1-124-903-11	ELECT	1uF	20%	50V
C504	1-130-489-00	MYLAR	0.033uF	5%	50V
C505	1-124-464-11	ELECT	0.22uF	20%	50V
C506	1-130-484-00	MYLAR	0.012uF	5%	50V
C507	1-130-493-00	MYLAR	0.068uF	5%	50V
C508	1-130-480-00	MYLAR	0.0056uF	5%	50V
C509	1-130-485-00	MYLAR	0.015uF	5%	50V
C510	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C511	1-130-485-00	MYLAR	0.015uF	5%	50V
C512	1-162-294-31	CERAMIC	0.001uF	10%	50V
C513	1-124-903-11	ELECT	1uF	20%	50V
C514	1-124-903-11	ELECT	1uF	20%	50V
C520	1-124-120-11	ELECT	220uF	20%	25V
C551	1-124-903-11	ELECT	1uF	20%	50V
C553	1-124-903-11	ELECT	1uF	20%	50V
C554	1-130-489-00	MYLAR	0.033uF	5%	50V
C555	1-124-464-11	ELECT	0.22uF	20%	50V
C556	1-130-484-00	MYLAR	0.012uF	5%	50V
C557	1-130-493-00	MYLAR	0.068uF	5%	50V
C558	1-130-480-00	MYLAR	0.0056uF	5%	50V
C559	1-130-485-00	MYLAR	0.015uF	5%	50V
C560	1-161-374-11	CERAMIC	0.0015uF	30%	16V
C561	1-130-485-00	MYLAR	0.015uF	5%	50V
C562	1-162-294-31	CERAMIC	0.001uF	10%	50V
C563	1-124-903-11	ELECT	1uF	20%	50V
C564	1-124-903-11	ELECT	1uF	20%	50V
C600	1-124-120-11	ELECT	220uF	20%	25V
C601	1-124-126-00	ELECT	47uF	20%	10V
C602	1-124-120-11	ELECT	220uF	20%	25V
C603	1-124-126-00	ELECT	47uF	20%	10V
C604	1-130-495-00	MYLAR	0.1uF	5%	50V
C605	1-124-126-00	ELECT	47uF	20%	10V
C606	1-124-126-00	ELECT	47uF	20%	10V
C607	1-162-288-31	CERAMIC	330PF	10%	50V
C608	1-124-903-11	ELECT	1uF	20%	50V
C609	1-161-327-00	CERAMIC	0.0033uF	30%	16V
C611	1-130-495-00	MYLAR	0.1uF	5%	50V
C613	1-124-120-11	ELECT	220uF	20%	25V
C622	1-124-903-11	ELECT	1uF	20%	50V
C623	1-162-294-31	CERAMIC	0.001uF	10%	50V
C624	1-126-176-11	ELECT	220uF	20%	10V
C625	1-124-903-11	ELECT	1uF	20%	50V
C651	1-124-126-00	ELECT	47uF	20%	10V
C652	1-124-120-11	ELECT	220uF	20%	25V
C653	1-124-126-00	ELECT	47uF	20%	10V
C654	1-130-495-00	MYLAR	0.1uF	5%	50V
C655	1-124-126-00	ELECT	47uF	20%	10V
C656	1-124-126-00	ELECT	47uF	20%	10V
C657	1-162-288-31	CERAMIC	330PF	10%	50V
C658	1-124-903-11	ELECT	1uF	20%	50V
C659	1-161-327-00	CERAMIC	0.0033uF	30%	16V
C661	1-130-495-00	MYLAR	0.1uF	5%	50V
C701	1-126-233-11	ELECT	22uF	20%	50V
C702	1-126-103-11	ELECT	470uF	20%	16V
C703	1-161-379-00	CERAMIC	0.01uF	20%	25V
C704	1-124-473-11	ELECT	1000uF	20%	10V
C753	1-161-379-00	CERAMIC	0.01uF	20%	25V
C853	1-161-494-00	CERAMIC	0.022uF		25V
C904	1-161-379-00	CERAMIC	0.01uF	20%	25V
C907	1-161-379-00	CERAMIC	0.01uF	20%	25V

MAIN

Ref. No.	Part No.	Description			Remark
C1001	1-130-491-00	MYLAR	0.047uF	5%	50V
C1002	1-124-902-00	ELECT	0.47uF	20%	50V
C1003	1-124-902-00	ELECT	0.47uF	20%	50V
C1004	1-124-927-11	ELECT	4.7uF	20%	100V
C1005	1-124-925-11	ELECT	2.2uF	20%	100V
C1006	1-124-907-11	ELECT	10uF	20%	50V
C1007	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C1090	1-161-377-00	CERAMIC	0.0047uF	30%	16V
		< FILTER >			
CF1	1-527-870-00	FILTER			
CF2	1-567-960-11	FILTER, CERAMIC			
		< INDUCTOR >			
CH1	1-410-509-11	INDUCTOR	10uH		
		< CONNECTOR >			
CON201 *	1-580-293-11	WAFER, CONNECTOR 3P			
CON202 *	1-580-294-11	WAFER, CONNECTOR 4P			
CON801 *	1-580-296-11	WAFER, CONNECTOR 7P			
CON803 *	1-573-708-11	WAFER, CONNECTOR 5P			
CON901 *	1-580-292-11	WAFER, CONNECTOR 2P			
		< TRIMMER >			
CT5	1-141-414-11	TRIMMER, CERAMIC			
CT6	1-141-414-11	TRIMMER, CERAMIC			
		< DIODE >			
D1	8-719-912-20	DIODE 1SS120			
D202	8-719-912-20	DIODE 1SS120			
D204	8-719-912-20	DIODE 1SS120			
D205	8-719-912-20	DIODE 1SS120			
D254	8-719-912-20	DIODE 1SS120			
D700	8-719-912-20	DIODE 1SS120			
D702	8-719-912-20	DIODE 1SS120			
D703	8-719-912-20	DIODE 1SS120			
D704	8-719-912-20	DIODE 1SS120			
D707	8-719-912-20	DIODE 1SS120			
D802	8-719-200-02	DIODE 10E2			
D803	8-719-912-20	DIODE 1SS120			
D1001	8-719-912-20	DIODE 1SS120			
D1002	8-719-912-20	DIODE 1SS120			
		< TRIMMER >			
FTC1	1-141-413-11	TRIMMER, FINE TUNING			

Ref. No.	Part No.	Description	Remark
		< IC >	
IC1	8-759-234-60	IC TA8167N	
IC201	8-759-242-58	IC TA8189N	
IC501	8-759-933-38	IC BA3822LS	
IC602	8-759-501-93	IC BA5412	
IC652	8-759-501-93	IC BA5412	
IC1001	8-759-520-66	IC KA2231	
		< JACK >	
J601	1-580-297-11	JACK (HEADPHONES)	
		< COIL >	
L1	1-422-297-11	COIL-H, SPRING (EA)	
L1 *	1-428-040-11	COIL, AIR-CORE (E)	
L2	1-460-184-11	COIL (WITH CORE) (FM OSC)	
L101	1-402-476-11	COIL, ANTENNA (SW1)	
L102	1-402-266-11	ANTENNA, COIL (SW)	
L103	1-402-517-11	ANTENNA, FERRITE-ROD (MW)	
L201	1-433-353-11	TRANSFORMER, BIAS OSCILLATION	
		< TRANSISTOR >	
Q1	8-729-206-28	TRANSISTOR RN1210	
Q200	8-729-923-22	TRANSISTOR KSC900-L	
Q201	8-729-206-28	TRANSISTOR RN1210	
Q202	8-729-925-36	TRANSISTOR KSD227-Y	
Q203	8-729-925-36	TRANSISTOR KSD227-Y	
Q251	8-729-206-28	TRANSISTOR RN1210	
Q252	8-729-925-36	TRANSISTOR KSD227-Y	
Q253	8-729-900-83	TRANSISTOR DTC124XS	
Q601	8-729-900-83	TRANSISTOR DTC124XS	
Q602	8-729-925-36	TRANSISTOR KSD227-Y	
Q651	8-729-900-83	TRANSISTOR DTC124XS	
Q652	8-729-925-36	TRANSISTOR KSD227-Y	
Q700	1-808-399-11	TRANSISTOR KSC945L	
Q701	1-807-626-11	TRANSISTOR KSC1008	
Q702	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q703	8-729-900-63	TRANSISTOR DTA124ES	
Q704	1-807-626-11	TRANSISTOR KSC1008	
Q754	1-807-626-11	TRANSISTOR KSC1008	
Q800	1-807-627-11	TRANSISTOR KSA708	
Q801	8-729-925-36	TRANSISTOR KSD227-Y	
Q802	1-807-626-11	TRANSISTOR KSC1008	
Q901	8-729-930-94	TRANSISTOR KSD882-O	
Q1001	1-807-626-11	TRANSISTOR KSC1008	

MAIN

Ref. No.	Part No.	Description				Remark
		< RESISTOR >				
R1	1-249-429-11	CARBON	10K	5%	1/4W	
R2	1-249-393-11	CARBON	10	5%	1/4W	
R3	1-249-409-11	CARBON	220	5%	1/4W	
R4	1-249-399-11	CARBON	33	5%	1/4W	
R5	1-249-426-11	CARBON	5.6K	5%	1/4W	
R6	1-249-425-11	CARBON	4.7K	5%	1/4W	
R7	1-249-413-11	CARBON	470	5%	1/4W	
R8	1-249-417-11	CARBON	1K	5%	1/4W	
R10	1-249-430-11	CARBON	12K	5%	1/4W	
R12	1-249-434-11	CARBON	27K	5%	1/4W	
R13	1-249-437-11	CARBON	47K	5%	1/4W	
R14	1-249-434-11	CARBON	27K	5%	1/4W	
R15	1-249-437-11	CARBON	47K	5%	1/4W	
R16	1-249-409-11	CARBON	220	5%	1/4W	
R17	1-249-414-11	CARBON	560	5%	1/4W	
R18	1-249-414-11	CARBON	560	5%	1/4W	
R200	1-249-426-11	CARBON	5.6K	5%	1/4W	
R201	1-249-417-11	CARBON	1K	5%	1/4W	
R202	1-249-417-11	CARBON	1K	5%	1/4W	
R203	1-249-405-11	CARBON	100	5%	1/4W	
R204	1-247-887-00	CARBON	220K	5%	1/4W	
R205	1-249-427-11	CARBON	6.8K	5%	1/4W	
R206	1-249-428-11	CARBON	8.2K	5%	1/4W	
R207	1-247-885-00	CARBON	180K	5%	1/4W	
R208	1-249-425-11	CARBON	4.7K	5%	1/4W	
R210	1-249-407-11	CARBON	150	5%	1/4W	
R211	1-249-428-11	CARBON	8.2K	5%	1/4W	
R212	1-247-885-00	CARBON	180K	5%	1/4W	
R213	1-247-891-00	CARBON	330K	5%	1/4W	
R214	1-249-423-11	CARBON	3.3K	5%	1/4W	
R215	1-247-883-00	CARBON	150K	5%	1/4W	
R216	1-249-421-11	CARBON	2.2K	5%	1/4W	
R218	1-247-881-00	CARBON	120K	5%	1/4W	
R219	1-249-430-11	CARBON	12K	5%	1/4W	
R230	1-249-405-11	CARBON	100	5%	1/4W	
R231	1-249-437-11	CARBON	47K	5%	1/4W	
R232	1-249-406-11	CARBON	120	5%	1/4W	
R233	1-249-425-11	CARBON	4.7K	5%	1/4W	
R250	1-249-426-11	CARBON	5.6K	5%	1/4W	
R251	1-249-417-11	CARBON	1K	5%	1/4W	
R252	1-249-417-11	CARBON	1K	5%	1/4W	
R253	1-249-405-11	CARBON	100	5%	1/4W	
R254	1-247-887-00	CARBON	220K	5%	1/4W	
R255	1-249-427-11	CARBON	6.8K	5%	1/4W	
R256	1-249-428-11	CARBON	8.2K	5%	1/4W	
R257	1-247-885-00	CARBON	180K	5%	1/4W	

Ref. No.	Part No.	Description				Remark
R258	1-249-429-11	CARBON	10K	5%	1/4W	
R259	1-249-433-11	CARBON	22K	5%	1/4W	
R260	1-249-407-11	CARBON	150	5%	1/4W	
R261	1-249-428-11	CARBON	8.2K	5%	1/4W	
R262	1-247-885-00	CARBON	180K	5%	1/4W	
R263	1-247-891-00	CARBON	330K	5%	1/4W	
R264	1-249-423-11	CARBON	3.3K	5%	1/4W	
R265	1-247-891-00	CARBON	330K	5%	1/4W	
R266	1-249-421-11	CARBON	2.2K	5%	1/4W	
R268	1-247-881-00	CARBON	120K	5%	1/4W	
R269	1-249-430-11	CARBON	12K	5%	1/4W	
R271	1-249-432-11	CARBON	18K	5%	1/4W	
R272	1-249-429-11	CARBON	10K	5%	1/4W	
R275	1-249-406-11	CARBON	120	5%	1/4W	
R501	1-249-441-11	CARBON	100K	5%	1/4W	
R502	1-249-426-11	CARBON	5.6K	5%	1/4W	
R504	1-249-430-11	CARBON	12K	5%	1/4W	
R505	1-249-419-11	CARBON	1.5K	5%	1/4W	
R506	1-249-405-11	CARBON	100	5%	1/4W	
R520	1-249-413-11	CARBON	470	5%	1/4W	
R551	1-249-441-11	CARBON	100K	5%	1/4W	
R552	1-249-426-11	CARBON	5.6K	5%	1/4W	
R554	1-249-430-11	CARBON	12K	5%	1/4W	
R555	1-249-419-11	CARBON	1.5K	5%	1/4W	
R556	1-249-405-11	CARBON	100	5%	1/4W	
R601	1-249-406-11	CARBON	120	5%	1/4W	
R602	1-249-406-11	CARBON	120	5%	1/4W	
R604	1-249-418-11	CARBON	1.2K	5%	1/4W	
R605	1-249-417-11	CARBON	1K	5%	1/4W	
R607	1-249-385-11	CARBON	2.2	5%	1/6W	
R608	1-249-385-11	CARBON	2.2	5%	1/6W	
R609	1-249-407-11	CARBON	150	5%	1/4W	
R610	1-249-435-11	CARBON	33K	5%	1/4W	
R611	1-249-437-11	CARBON	47K	5%	1/4W	
R612	1-249-432-11	CARBON	18K	5%	1/4W	
R620	1-247-891-00	CARBON	330K	5%	1/4W	
R621	1-249-426-11	CARBON	5.6K	5%	1/4W	
R622	1-249-413-11	CARBON	470	5%	1/4W	
R623	1-249-419-11	CARBON	1.5K	5%	1/4W	
R624	1-249-421-11	CARBON	2.2K	5%	1/4W	
R625	1-249-429-11	CARBON	10K	5%	1/4W	
R651	1-249-406-11	CARBON	120	5%	1/4W	
R652	1-249-406-11	CARBON	120	5%	1/4W	
R654	1-249-418-11	CARBON	1.2K	5%	1/4W	
R655	1-249-417-11	CARBON	1K	5%	1/4W	
R657	1-249-385-11	CARBON	2.2	5%	1/6W	
R658	1-249-385-11	CARBON	2.2	5%	1/6W	
R659	1-249-407-11	CARBON	150	5%	1/4W	
R660	1-249-435-11	CARBON	33K	5%	1/4W	

Ref. No.	Part No.	Description				Remark
R661	1-249-437-11	CARBON	47K	5%	1/4W	
R662	1-249-432-11	CARBON	18K	5%	1/4W	
R700	1-249-434-11	CARBON	27K	5%	1/4W	
R702	1-249-429-11	CARBON	10K	5%	1/4W	
R703	1-249-437-11	CARBON	47K	5%	1/4W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R708	⚠ 1-217-641-00	FUSIBLE	4.7	5%	1/4W	F
R709	1-249-439-11	CARBON	68K	5%	1/4W	
R710A	1-249-429-11	CARBON	10K	5%	1/4W	
R710	1-249-439-11	CARBON	68K	5%	1/4W	
R711	1-249-432-11	CARBON	18K	5%	1/4W	
R753	1-249-409-11	CARBON	220	5%	1/4W	
R800	1-249-429-11	CARBON	10K	5%	1/4W	
R801	1-249-417-11	CARBON	1K	5%	1/4W	
R802	1-249-434-11	CARBON	27K	5%	1/4W	
R804	1-249-434-11	CARBON	27K	5%	1/4W	
R805	1-249-433-11	CARBON	22K	5%	1/4W	
R806	1-249-399-11	CARBON	33	5%	1/4W	
R807	1-249-422-11	CARBON	2.7K	5%	1/4W	
R808	1-249-419-11	CARBON	1.5K	5%	1/4W	
R901	1-249-401-11	CARBON	47	5%	1/4W	
R902	1-249-404-00	CARBON	82	5%	1/4W	
R903	⚠ 1-249-447-11	CARBON	1	5%	1/4W	F
R1001	1-249-430-11	CARBON	12K	5%	1/4W	
R1002	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1003	1-247-887-00	CARBON	220K	5%	1/4W	
R1004	1-247-881-00	CARBON	120K	5%	1/4W	
R1005	1-249-405-11	CARBON	100	5%	1/4W	
R1006	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1051	1-249-430-11	CARBON	12K	5%	1/4W	

< SWITCH >

S101	1-572-500-11	SWITCH, LEVER SLIDE (FUNCTION)
S201	1-572-842-11	SWITCH, LEVER SLIDE (KARAOKE MODE)
S301	1-570-795-11	SWITCH, SLIDE (ISS/FM MODE)
S401	1-572-808-11	SWITCH, SLIDE (REC/PB)
S501	1-570-947-11	SWITCH, SLIDE (BAND SELECT)

< VARIABLE RESISTOR >

SVR1	1-228-994-00	RES, ADJ, METAL10K
SVR801	1-230-719-11	RES, ADJ, CARBON 2.2K

< TRANSFORMER >

T1	1-403-872-00	I.F.T CONVERTER FM(SMALL TYPE)
T2	1-404-551-11	IFT
T3	1-404-249-00	COIL, FM DETECTOR
T101	1-406-227-11	COIL, SW1 OSCILLATION
T102	1-406-305-11	COIL, OSC
T103	1-406-397-11	COIL, OSC (MW)

Ref. No.	Part No.	Description	Remark
		< TERMINAL >	
TB601	1-537-114-11	TERMINAL BOARD	
		< TRIMMER >	
TC1-4	1-151-559-11	CAP, VAR, POLYETHYLENE	
VC1-4			
		< VARIABLE RESISTOR >	
VR501	1-241-244-11	RES, VAR, SLIDE 50K/50K (100Hz)	
VR502	1-241-244-11	RES, VAR, SLIDE 50K/50K (400Hz)	
VR503	1-241-244-11	RES, VAR, SLIDE 50K/50K (1kHz)	
VR504	1-241-244-11	RES, VAR, SLIDE 50K/50K (4kHz)	
VR505	1-241-244-11	RES, VAR, SLIDE 50K/50K (10kHz)	
VR601	1-238-643-11	RES, VAR, CARBON 50K/50K (VOLUME)	
VR602	1-241-245-11	RES, VAR, SLIDE 50K (BALANCE)	
		< DIODE >	
ZD701	8-719-110-08	DIODE RD8.2ES-B2	
ZD702	8-719-160-74	DIODE RD22FB1	
ZD901	8-719-160-43	DIODE RD9.1F-B2	

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*	1-640-253-11	POWER BOARD
		**********
*	1-533-228-11	HOLDER, FUSE
	3-395-263-01	FUSE COVER

< CAPACITOR >

C300	1-162-294-31	CERAMIC	0.001uF	10% 50V
C301	1-161-494-00	CERAMIC	0.022uF	25V
C302	1-123-382-00	ELECT	3.3uF	20% 100V
C304	1-124-443-00	ELECT	100uF	20% 10V
C305	1-124-443-00	ELECT	100uF	20% 10V
C325	1-124-903-11	ELECT	1uF	20% 50V
C326	1-124-443-00	ELECT	100uF	20% 10V
C327	1-124-903-11	ELECT	1uF	20% 50V
C328	1-161-379-00	CERAMIC	0.01uF	20% 25V
C350	1-162-294-31	CERAMIC	0.001uF	10% 50V
C351	1-161-494-00	CERAMIC	0.022uF	25V
C352	1-123-382-00	ELECT	3.3uF	20% 100V
C901	1-161-021-11	CERAMIC	0.047uF	10% 25V
C902	1-161-021-11	CERAMIC	0.047uF	10% 25V
C903	1-161-021-11	CERAMIC	0.047uF	10% 25V
C906	1-124-563-11	ELECT	2200uF	20% 25V

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

POWER | REC MUTE

Ref.No.	Part No.	Description	Remark
		< CONNECTOR >	
CON302	* 1-580-294-11	WAFER, CONNECTOR 4P	
CON902	* 1-580-292-11	WAFER, CONNECTOR 2P	
		< DIODE >	
D901	1-808-507-11	DIODE 1N5173	
D902	1-808-507-11	DIODE 1N5173	
D903	1-808-507-11	DIODE 1N5173	
D904	1-808-507-11	DIODE 1N5173	
		< FUSE >	
F901	⚠ 1-532-235-00	FUSE, TIME-LAG (T0.315A)	
F902	⚠ 1-532-237-00	FUSE, TIME-LAG (T3.15A)	
		< JACK >	
J301	1-580-297-11	JACK (MIX MIC 1)	
J302	1-580-297-11	JACK (MIX MIC 2)	
J901	⚠ 1-526-838-11	SOCKET, AC (AC IN)	
		< TRANSISTOR >	
Q301	1-807-627-11	TRANSISTOR KSA708	
Q302	1-808-399-11	TRANSISTOR KSC945L	
Q303	1-808-399-11	TRANSISTOR KSC945L	
Q304	1-808-399-11	TRANSISTOR KSC945L	
Q305	8-729-923-22	TRANSISTOR KSC900-L	
Q352	1-808-399-11	TRANSISTOR KSC945L	
Q353	1-808-399-11	TRANSISTOR KSC945L	
		< RESISTOR >	
R301	1-249-427-11	CARBON 6.8K 5% 1/4W	
R302	1-249-411-11	CARBON 330 5% 1/4W	
R303	1-247-895-00	CARBON 470K 5% 1/4W	
R304	1-249-416-11	CARBON 820 5% 1/4W	
R305	1-249-426-11	CARBON 5.6K 5% 1/4W	
R306	1-249-421-11	CARBON 2.2K 5% 1/4W	
R307	1-249-417-11	CARBON 1K 5% 1/4W	
R329	1-249-421-11	CARBON 2.2K 5% 1/4W	
R330	1-247-895-00	CARBON 470K 5% 1/4W	
R331	1-249-425-11	CARBON 4.7K 5% 1/4W	
R332	1-249-417-11	CARBON 1K 5% 1/4W	
R333	1-249-408-11	CARBON 180 5% 1/4W	
R352	1-249-411-11	CARBON 330 5% 1/4W	
R353	1-247-895-00	CARBON 470K 5% 1/4W	
R354	1-249-416-11	CARBON 820 5% 1/4W	
R355	1-249-426-11	CARBON 5.6K 5% 1/4W	
R356	1-249-421-11	CARBON 2.2K 5% 1/4W	
R357	1-249-435-11	CARBON 33K 5% 1/4W	

Ref.No.	Part No.	Description	Remark
		< SWITCH >	
S901	⚠ 1-572-501-11	SWITCH, VOLTAGE SELECTION	
		< TRANSFORMER >	
T901	⚠ 1-450-230-11	TRANSFORMER, POWER	
**********			
	* 1-640-252-11	REC MUTE BOARD	
		**********	
		< SWITCH >	
S601	1-572-843-11	SWITCH, PUSH (REC MUTE)	
**********			
		MISCELLANEOUS	
		**********	
201	1-559-620-11	CORD (WITH CONNECTOR)	
ANT1	1-501-346-11	ANTENNA, TELESCOPIC	
C908	1-124-478-11	ELECT 100uF 20% 25V	
C909	1-161-021-11	CERAMIC 0.047uF 10% 25V	
HE901	1-543-558-11	HEAD, E	
HP901	1-543-727-11	HEAD (PLAYBACK) (DECK A)	
HRP901	1-543-727-11	HEAD (RECORD/PLAYBACK) (DECK B)	
M901	3-369-930-01	MOTOR ASSY	
PM901	1-454-466-11	SOLENOID	
S951	1-571-745-11	SWITCH, LEAF (B-PLAY)	
S952	1-572-538-11	SWITCH, LEAF (B-MAIN)	
S953	1-572-538-11	SWITCH, LEAF (A-MAIN)	
S954	1-571-745-11	SWITCH, LEAF (A-PLAY)	
S955	1-571-745-11	SWITCH, LEAF (AMPS)	
SP601	1-544-378-11	SPEAKER (16CM)	
SP602	X-3363-374-1	SP FRONT L	
SP651	1-544-378-11	SPEAKER (16CM)	
SP652	X-3363-375-1	SP FRONT R	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		ACCESSORY & PACKING MATERIAL	
		**********	
	1-506-401-31	ADAPTOR, CONVERSION (EA)	
	1-555-234-00	CORD, POWER (DK-52) 2P (E)	
	1-575-131-11	CORD, POWER (EA)	
*	3-366-083-01	CUSHION (BOTTOM)	
*	3-366-084-01	CUSHION (TOP)	
	3-366-269-01	BRAND LABEL	
	3-366-270-01	SWITCH PLATE	
*	3-369-769-01	INDIVIDUAL CARTON (E)	
*	3-369-770-01	INDIVIDUAL CARTON (EA)	
	3-753-267-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH)	

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HARDWARE LIST

# 1	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3
# 2	7-621-773-95	SCREW +B 2.6X6
# 3	7-685-647-79	SCREW, TAPPING
# 4	7-682-549-04	SCREW +PTT 3X10 (S)
# 5	7-682-548-04	SCREW +B 3X8
# 6	7-685-651-79	SCREW +BVTP 3X20 TYPE2 N-S
# 7	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S
# 8	7-685-552-19	SCREW +BTP 3X25 TYPE2 N-S
# 9	7-621-255-35	SCREW +P 2X5
#10	7-621-255-25	SCREW +PTT 2X4 (S)
#11	7-621-770-87	SCREW +PTT 2.6X5 (S)
#12	7-621-773-86	SCRTEWTOTSU PTTWH 2.6X4
#13	7-621-255-45	SCREW +PTT 2X6 (S)
#14	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT

Sony Corporation
Audio Group

English
91E1814-1
Printed in Japan
©1991. 5
Published by Customer Relations and Service Group

9-956-407-11
(Including 9-956-407-91)